REMARKS/ARGUMENTS

Claims 33-67 and 69 remain pending in the application. The Applicant hereby requests further examination and reconsideration of the application in view of these remarks.

Allowable Subject Matter

In page 11 of the May 11, 2010 Office Action, the Examiner indicated that claims 36, 46, 47, 52, 62, 63, and 69 are directed to allowable subject matter and would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior-Art Rejections

In pages 3-7 of the Office Action, the Examiner rejected claims 33, 35, 37, 41-45, 48-49, 51, 53, 54, 57-61, 64, and 67 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 6,853,681 to Lindoff ("Lindoff") in view of U.S. Pat. App. Pub. No. 2002/0075947 to Lai et al. ("Lai"), in further view of U.S. Pat. No. 7,499,397 to Monk et al. ("Monk"), in further view of U.S. Pat. App. Pub. No. 2005/0186933 to Trans ("Trans"). In page 8, the Examiner rejected claims 34 and 50 under 35 U.S.C. §103(a) as being unpatentable over Lindoff in view of Lai, Monk, and Trans, in further view of U.S. Pat. App. Pub. No. 2003/0039242 to Moore, Jr. ("Moore"). In page 9, the Examiner rejected claims 39, 40, 55, and 56 under 35 U.S.C. §103(a) as being unpatentable over Lindoff, in view of Lai, Monk, and Trans, in further view of U.S. Pat. App. Pub. No. 2002/0016949 to Goslin et al. ("Goslin"). In pages 9-10, the Examiner rejected claims 65 and 66 under 35 U.S.C. §103(a) as being unpatentable over Lindoff, in view of Lai, Monk, and Trans, in further view of U.S. Pat. No. 6,421,527 to DeMartin et al. ("DeMartin"). For the reasons outlined below, the Applicant submits that all of the currently pending claims are allowable over the cited references.

Claims 33 and 49

In rejecting claim 33, the Examiner asserted that a combination of Lindoff, Lai, Monk, and Trans would disclose all the features of that claim. The Applicant submits that the suggested combination of Lindoff, Lai, Monk, and Trans would not teach all the features of claim 33.

As an initial matter, the Applicant notes that the Examiner did not address the features of (i) a first auxiliary coding corresponding to only the first data packet and (ii) a second auxiliary coding corresponding to only the second data packet. Consequently, the Applicant submits that,

for this reason alone, the rejection of claim 33 is improper and should be withdrawn. The Applicant further submits that it is not clear from the rejection where, if anywhere, in the cited references the Examiner alleges that a receiver adapted to receive a first auxiliary coding and a second auxiliary coding are disclosed. Clarification is respectfully requested.

In reference to the above-discussed features, the Applicant notes that the limitation of a first auxiliary coding corresponding to only the first data packet refers to the particular instance of a data packet and the corresponding auxiliary coding and not to the value or content of the particular instance of the auxiliary coding. In other words, a subsequent data packet D_n may have a uniquely corresponding auxiliary coding A_n whose value is the same as the value of the first auxiliary coding. It may be helpful to think of the auxiliary coding as a return-address mailing label, where a particular label corresponds to only one particular mailed letter – the letter the label is attached to, but where other mailed letters may have their own, yet identical, uniquely corresponding return-address mailing labels. The same applies, *mutatis mutandis*, to the limitation of a second auxiliary coding corresponding to only the second data packet.

The Applicant submits that the proposed combination does not teach a receiver adapted to receive a first auxiliary coding corresponding to only the first data packet, wherein the first auxiliary coding and the first identifier are each different from the training sequence. Assuming *arguendo*, as the Examiner suggested, that the training sequence of Lindoff corresponds to the recited auxiliary coding (which the Applicant denies), Lindoff does not teach an auxiliary coding corresponding to only a first data packet. Lindoff teaches that a training sequence "is a predefined digital string which is typically sent along with data transmissions at regular time intervals" (column 1, lines 52-54). Transmission "at regular time intervals" is not transmissions corresponding to data packets. Lindoff nowhere teaches a training sequence that corresponds to a data packet. As a result, it cannot be said that Lindoff teaches this feature of claim 33.

The Examiner asserted that Lai discloses "the first auxiliary coding/first identifier is different from the training sequence" since Lai allegedly teaches training preambles that comprise "training sequences as well as other control data." The Applicant submits that whether Lai, or any other reference, teaches a preamble comprising a training sequence and "other control data" is irrelevant here since claim 33 recites receiving a first auxiliary coding that identifies a first identifier and not some undefined "other control data." As a result, the Applicant submits that the Examiner's rejection of claim 33 is improper and should be withdrawn.

The Examiner, in fact, proceeded to admit that Lindoff and Lai indeed do <u>not</u> disclose a first auxiliary coding that identifies a first identifier. The Examiner subsequently asserted that "Monk discloses that training sequences are encoded." The Applicant submits that this alleged teaching of Monk's about encoding training sequences says <u>nothing</u> about a first auxiliary coding that identifies a first identifier. Consequently, it cannot be said that the cited references teach this feature of claim 33.

The Examiner then proceeded to assert that "it should be obvious to a person skilled in the art to have a training sequence (first identifier) be encoded (thus correlating to auxiliary coding) as disclosed by Monk." The Applicant notes that claim 33 includes the limitation that the first identifier is <u>different</u> from the training sequence and that, consequently, the Examiner's above-quoted implied assertion that the training sequence is <u>equivalent</u> to the first identifier does <u>not</u> make sense and is, consequently, improper. As a result, the Applicant submits that the Examiner's rejection of claim 33 is improper and should be withdrawn.

Therefore, for the above reasons, it is submitted that claim 33 is allowable over the cited references. For similar reasons, it is submitted that claim 49 is also allowable over the cited references. Since claims 34-48, 65, 67, and 69 depend variously from claim 33, and claims 50-64 and 66 depend variously from claim 49, it is further submitted that those claims are also allowable over the cited references.

<u>Claims 35 and 51</u>

In rejecting claim 35, the Examiner asserted that a combination of the cited references teaches the features of that claim. In particular, the Examiner asserted that Fig. 2 of Lai teaches the feature of the first auxiliary coding and the first data packet's training sequence forming the first and second portion, respectively of the first data packet. The Applicant submits that Lai does not teach this feature.

Fig. 2 of Lai shows a data-packet preamble comprising a set of forward link parameters, then a training sequence, and then a set of reverse link parameters. In other words, Lai shows a packet where forward link parameters form the first portion of the data packet. The forward link parameters, however, do <u>not</u> correspond to the first auxiliary coding. As noted above, the first auxiliary coding identifies a first identifier that is used to retrieve, from a database table, a first set of one or more parameters used to process at least a portion of the first data packet. The forward link parameters, however, already identify the parameters themselves (*e.g.,* modulation

type, forward-error-correction code rate, spreading factor). In other words, Lai's forward link parameters are <u>not</u> an identifier used to retrieve the parameters from a database table. In fact, it would not make sense to use Lai's forward link parameters to search a database to retrieve those parameters themselves. Consequently, it cannot be said that Lai teaches the above-described feature of claim 35.

Therefore, the Applicant submits that these reasons provide further grounds for the allowability of claim 35 over the cited references. For similar reasons, the Applicant further submits that this also provides further grounds for the allowability of claim 51.

<u>Claims 40 and 56</u>

In rejecting claim 40, the Examiner asserted that a combination of the cited references teaches all the features of claim 40, including that the second transmitter is adapted to transmit (i) the first transmitted auxiliary coding using a first RF front end and (ii) the first transmitted data packet using the second RF front end. The Applicant submits that the cited references do not teach these features of claim 40.

The Examiner asserted that a combination of Lindoff, Lai, Monk, Trans, and Goslin would disclose all the requisite features of claim 40. Significantly, the Examiner did not assert that <u>any</u> of the cited references teach a network device with a first <u>and</u> a second RF front end. Goslin mentions a front end, but does not teach a transmitter having <u>two</u> RF front ends, where a first RF front end transmits an auxiliary coding, and the second RF front end transmits a corresponding data packet.

The Examiner did assert that "It should thus be obvious to transmit the auxiliary coding with the same/different RF front end as it is well known in the art that transmitters/receivers incorporate RF front ends to transmit data which incorporates training sequences and data packets" and "transmitting of aux[iliary] coding through a specified RF front end is simply a systems parameter of the transmission system and its components." First, the bald assertion that, by their very nature, transmitters/receivers have multiple RF front ends is unsupported. Second, denigrating a requisite feature as "simply a systems parameter" does not actually show where the prior art allegedly teaches that requisite feature. In other words, no support is provided for the assertion that the cited references teach a device having and using multiple RF front ends. Consequently, it cannot be said that the cited references teach this requisite feature of claim 40.

Therefore, the Applicant submits that the above reasons provide further grounds for the allowability of claim 40 over the cited references. For similar reasons, it is submitted that this also provides further grounds for the allowability of claim 56 over the cited references.

Claims 42 and 58

In rejecting claim 42, the Examiner admitted that the combination of Lindoff, Lai, Monk, and Trans fails to teach a first auxiliary coding of five or fewer bits. However, the Examiner asserted that "it would have been obvious to use 5 or fewer symbols/bits to efficiently use bandwidth and resources of the channel…" and that "this is simply a network parameter." The Applicant notes, however, that claim features must be analyzed in view of the related correspondences asserted by the Examiner.

As noted above, the Examiner asserted that the training sequence of Lindoff corresponds to the claimed auxiliary coding. As a result, to properly anticipate or obviate claim 42, the cited references must teach a training sequence that is five or fewer bits long. The Examiner did not identify any reference that teaches a training sequence that is five or fewer bits. The Applicant submits that, while a five-bit identifier could be useful to uniquely identify 32 different stations, a five-bit training sequence is likely to be too short to be useful. For example, the specification describes an exemplary training sequence that is <u>64</u> symbols long (*see, e.g.*, page 4, lines 9-14). As a result, since there is no indication that the cited references teach a training sequence of five or fewer bits, it cannot be said that the cited references teach an auxiliary coding that is five or fewer bits.

Therefore, the Applicant submits that the above reasons provide further grounds for the allowability of claim 42 over the cited references. For similar reasons, it is submitted that this also provides further grounds for the allowability of claim 58 over the cited references.

Claims 43 and 59

In rejecting claim 43, the Examiner asserted that the proposed combination of Lindoff, Lai, Monk, and Trans would disclose all the features of claim 43. The Applicant submits that the proposed combination would not disclose all the features of claim 43.

As noted above, in rejecting claim 33, the Examiner asserted that the first identifier of claim 33 corresponds to the training sequences of the cited references. Significantly, the Examiner failed to even allege where, if anywhere, any of Lindoff, Lai, Monk, or Trans discloses a training sequence that uniquely identifies its transmitter. In addition, the Examiner failed to

even allege where, if anywhere, any of the cited references teaches "the first identifier is a station identifier that uniquely identifies the first transmitter within the communication network," as recited in claim 43. For these reasons, the Applicant submits that the rejection of claim 43 is improper and should be withdrawn.

Therefore, the Applicant submits that this provides further grounds for the allowability of claim 43 over the cited references. For similar reasons, it is submitted that this provides further grounds for the allowability of claim 59 over the cited references. Since claim 44 depends from claim 43, and claim 60 depends from claim 59, it is further submitted that this also provides further grounds for the allowability of those claims.

Conclusion

In view of the above remarks, the Applicant believes that the now-pending claims are in condition for allowance. Therefore, the Applicant believes that the entire application is now in condition for allowance, and early and favorable action is respectfully solicited.

Fees

During the pendency of this application, the Commissioner for Patents is hereby authorized to charge payment of any filing fees for presentation of extra claims under 37 CFR 1.16 and any patent application processing fees under 37 CFR 1.17 or credit any overpayment to **Mendelsohn, Drucker, & Associates, P.C. Deposit Account No. 50-0782.**

The Commissioner for Patents is hereby authorized to treat any concurrent or future reply, requiring a petition for extension of time under 37 CFR § 1.136 for its timely submission, as incorporating a petition for extension of time for the appropriate length of time if not submitted with the reply.

Respectfully submitted,

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